

133853

June 3, 1971

Mr. Robert D. Kaiser
Environmental Protection Agency
918 Emmett Street
Charlottesville, Virginia 22901

Re: William Dick Lagoons
West Caln Township

Dear Bob:

The William Dick Lagoons (latitude 75° 54' 00" N; longitude, 40° 02' 30" W) have been under controversy since 1963 from local residents. On April 28, 1970, 37 geese became coated with oil from the lagoons and had to be killed.

On May 8, 1970, the State Health Department conducted an inspection and determined that the lagoons were contaminating groundwater supplies. The lagoon's structural instability and contamination of groundwater were brought to the attention of the State Sanitary Water Board. The board ordered the lagoons to be closed. A letter was sent to Mr. Dick on May 29, 1970 requesting a schedule by June 8, 1970 for eventual disposing of the lagoons.

The lagoons broke on June 7, 1970 of non-substantiated accidental causes. According to the Chester County Health Department, about 300,000 gallons of waste material were lost. The slug entered Birch Run and eventually the West Branch Brandywine.

Downstream users closed their intakes. Some of the waste entered the City of Coatesville's secondary supply lines causing maintenance problems but the city was able to meet water demands. Lukens Steel closed briefly to determine the effect on processing. Embreeville State Hospital had to tap old wells to meet the demand. The City of Wilmington, warned of the pollution slug, was able to speed up processing and fill storage reservoirs before closing intakes from 1800 hours, June 9 to 1030 hours, June 11.

Analysis of lagoon #1 prior to the break (May 28, 1970) showed the following values:

pH 7.4		ABS	125 ppm
alkalinity	940 ppm	FO ₄	64 ppm
COD	19630 ppm	phenol	26.6 ppm
Cu	0.18 ppm	Zn	2.7 ppm

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On June 8, 1970 - Waste discharge @ road:

(field) pH	7.5	conductivity	620 mhos
(field) D.O.	2.0 ppm	NH ₃	2.4 ppm
(lab) pH	6.3	ABS	14.0 ppm
alkalinity	125 ppm	PO ₄	0.4 ppm
COD	2020 ppm		

Organic analysis of stream samples taken June 7, 1970 showed no evidence of light volatile organic solvents (60°- 300°C). Infrared analysis indicated an acrylic latex spectrum. There is presently 4,000,000 gallons of waste material to be treated.

Fish Kill report from the June 7, 1970 break stated 2,677 fish were killed. Of these, 2,311 were minnows and the rest were larger fish. Field tests in the areas of heavy fish kill showed no appreciable change in pH or dissolved oxygen from the norm. FWPCA (Philadelphia field office) also did some analysis of the lagoons on June 23, 1970. You might check with Gil Horvitz for the data.

If you need any further information, just give me a call. Many thanks for the information you gave me.

Sincerely,

Patricia S. Imperato
Sanitary Chemist

PSI:plf

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